



Quality Enhancement Research Initiative

HIV/AIDS

## HIV/AIDS

Human Immunodeficiency Virus (HIV) infection is a condition that causes a chronic progressive disease that leads to early death if untreated. HIV is characterized by persistent viral replication throughout an extended period of time in which patients experience few or no symptoms, while their immune system is under siege. Over the course of 5 to 10 years, HIV typically results in significant immune depletion and dysfunction, chronic symptoms, and vulnerability to a variety of opportunistic conditions that characterize AIDS (Acquired Immune Deficiency Syndrome). There are 650,000 to 900,000 infected adults in the United States, and VA cares for about 17,000 to 18,000 HIV-infected patients each year, making it the largest provider of HIV care in the US.

The HIV/AIDS Quality Enhancement Research Initiative (QUERI-HIV) utilizes the QUERI process (see back page) to improve the quality of care and health outcomes of veterans with HIV. QUERI-HIV also produces critical information on best practices deemed essential for the effective care of veterans with HIV.

Since its inception in 1998, QUERI-HIV assisted in the creation of the AIDS Service's Center for Quality Management (CQM) in Palo Alto, CA and developed a number of proposals for both long and short-term research, many of which are now being implemented. These projects include evidence-based reports on feeding back the use of antiretroviral therapy and contraindicated medications, as well as assessing variations in policies and practices of screening, diagnosing,

referring, and managing patients for prevention and treatment. Currently, QUERI-HIV is working to translate the results of this research into practice.

## Translating Research into Practice

The QUERI-HIV translation plan emphasizes the general importance of optimizing drug therapies and the need to implement change around a gap discovered in adequate antiretroviral prescribing practices. Most importantly, QUERI-HIV research indicates that antiretroviral treatment in the VA ranges from exceeding clinical expectations in some facilities to falling short of professional standards in others, even when disregarding controversies about when to start treatment or highly active combinations. For example, preliminary findings showed that in the third quarter of 1999, 55 percent of HIV patients in VA care with indications for antiretroviral therapy received acceptable combinations of antiretroviral drugs, ranging from 27 to 80 percent per facility. However, 4 percent received single drugs or combinations of drugs that are not recommended, ranging from 0 to 21 percent of patients per site.

Current QUERI-HIV translation activities include developing a research-standard database of patients receiving

HIV care in VA, testing quality improvement (QI) strategies to improve HIV care, evaluating QI impacts on HIV patients and on the system (e.g., mortality measures, utilization rates), testing strategies to improve adherence to antiretroviral medications, improving screening practices to promote prevention, and investigating the effects of highly active antiretroviral therapy on the development of cardio- and cerebrovascular disease.

## Other Significant QUERI-HIV Research Findings

Here are just a few important areas of QUERI-HIV research and planned follow-up:

- *Veterans in care:* Pilot studies have shown an increasing number of HIV-infected veterans with comorbidities such as substance abuse and serious mental illness, or both. QUERI-HIV anticipates proposing additional research on the management and outcomes of these conditions and how they relate to HIV and its treatment.
- *Veterans not in care and those in care outside VHA:* QUERI-HIV is addressing several issues including veterans not in care and those who receive care outside VHA. While

## The QUERI-HIV Executive Committee:

Each QUERI Executive committee is co-chaired by a research expert and a clinician. The Research Coordinator is **Sam Bozzette, MD, PhD**; the Clinical Coordinator is Deborah Cotton, MD, MPH. QUERI-HIV's Executive Committee includes 12 other experts in the field of HIV/AIDS: Steven Asch, MD, MPH, Candice Bowman, PhD, RN, Sophia Chang, MD, MPH, Allen Gifford, MD, Matthew Goetz, MD, Mark Holodniy, MD, Mark Mischak, Douglas K. Owens, MD, MSc, Amy Justice, MD, PhD, Michael Simberkoff, MD, and Joel Tsevat, MD, MPH.

there are gaps in the knowledge about those with HIV infection who are not in care, research shows that minorities and other disadvantaged groups have inferior access to services. While economic barriers and fear of stigma may explain some lack of care, other barriers exist. QUERI-HIV will work to further assess any gaps that affect veterans with HIV who are not in care. Research also shows that veterans in care outside VHA, after adjusting for demographic and disease stage, are less likely to be uninsured than non-veterans. Thus VHA provides an effective “safety net.”

- *Metabolic disorders:* Over the past several years, lipodystrophy (defective metabolism of fat) has been recognized as a complication of HIV disease and treatment, particularly treatment with protease

inhibitors. In addition, there is now increasing concern regarding hyperlipidemia, osteoporosis, and the potential for an increased risk of cardio/cerebrovascular events (i.e., myocardial infarction and stroke). QUERI-HIV is close to completing a study of the possible association between highly active antiretroviral therapy and these serious events.

- *Antiretroviral and prophylaxis treatment:* There is increasing unease that guidelines for antiretroviral and prophylaxis treatment of opportunistic infections may be too aggressive, and many practitioners concerned about the risk of side-effects are advocating a more conservative approach. QUERI-HIV will continue to closely monitor this treatment evolution when planning quality improvement efforts.

## Quality Enhancement Research Initiative

QUERI currently focuses on eight conditions that are prevalent and high-risk among veteran patients: Colorectal Cancer, Chronic Heart Failure, Diabetes, HIV/AIDS, Ischemic Heart Disease, Mental Health, Spinal Cord Injury, and Substance Abuse.

## The QUERI Process

The QUERI process includes six steps:

- 1) identify high-risk/high-volume diseases or problems;
- 2) identify best practices;
- 3) define existing practice patterns and outcomes across VA and current variation from best practices;
- 4) identify and implement interventions to promote best practices;
- 5) document that best practices improve outcomes; and
- 6) document that outcomes are associated with improved health-related quality of life and systems improvements.

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**VA's Research and Development QUERI Website:** <http://www.va.gov/resdev/queri.htm>  
**QUERI-HIV direct web link:** <http://va-queri-hiv.ucsd.edu/>